

COST *and* MANAGEMENT

THE OFFICIAL JOURNAL
OF THE

CANADIAN SOCIETY OF COST
ACCOUNTANTS

INCORPORATED 1920

HEAD OFFICE, 81 VICTORIA ST., TORONTO

Telephone Elgin 8914

VOL. 3

FEBRUARY, 1928

No. 2

CONTENTS

	Page
BUDGETARY CONTROL. By Herbert Gilbert, C.A.	2
POSITIONS DESIRED	17
MONTHLY PROFIT AND LOSS FROM STANDARD COSTS. By D. C. Patton	23
LABOUR'S NEW CO-PARTNERSHIP. By David S. Kerr, C.A.	31
NOTICE TO MEMBERS	33
NEW MEMBERS	34
CHAPTER NOTES	35

Extra copies of this journal may be obtained at 50c each to members
and \$1 each to non-members.

COST AND MANAGEMENT

Budgetary Control

By HERBERT GILBERT, C.A.

*Riddell, Stead, Graham & Hutchison, Chartered
Accountants, Montreal*

(Before Montreal Chapter, November 25, 1927.)

THE importance of efficiency in business organization has never been so generally recognized as at the present time, and there is promise of even greater development in the future. The ultimate causes of this are to be found in the broad field of economics. The gradual absorption and development of natural resources, the exploitation of new fields of commerce, the increase of population, the higher standards of living, the greater complexities of demands in modern life—these are but a few of the innumerable influences reflected in the industrial life of to-day.

Being efficient requires the physical and mental ability to find and take the best, easiest and quickest way to obtain desirable results. Standards are the measuring sticks of efficiency.

According to Harrington Emerson, the eminent efficiency expert, there is no principle of efficiency more important than the one of planning.

The difference between a man who plans and the man who is forever getting into emergencies and difficult situations, trusting to luck or to his ingenuity to extricate himself, is the man, who, sitting quietly by himself is able to make a mental picture of himself in successive stages of his progress for hours, days, months, or even years ahead, and so to order his life that he never finds himself face to face with an emergency.

The planning which may be done in any particular business may be classified into three broad overlapping groups:

- 1st. That which deals with the operations of the separate departments such as production, sales and finance, usually referred to as industrial engineering.

- 2nd. That which deals with the co-ordination of the operations of the several departments to the end that a well formulated programme may be made for the business as a whole; such planning may well be termed a budgetary control.

BUDGETARY CONTROL

3rd. That which deals with the determination of future conditions as reflected in the business cycle, and the shaping of the plans of the business to meet these conditions. Such planning is known as forecasting, or business predicting.

We shall here consider the second group, relating to budgetary control. The term Budget is originally from a Gallic work meaning sack, latinized as "bulga," a leather wallet or bag—thence the old French "bougette" from which the English form is derived. The word also became associated with a bundle or sheaf of news and in the course of time came to mean an annual estimate of revenue and expenses of the British Chancellor of the Exchequer. How this last meaning came to be connected with the word is not clear except, perhaps, that the British Chancellors were accustomed to carrying the estimates in leather bags. At all events the budget properly still means an estimate of receipts and expenditures. The term first came into use in England about 1760. In the United States a very noteworthy reform of the Budget system was introduced by means of the Budget and Accounting Act of 1921.

Briefly, the method adopted by commercial enterprises for budgetary control requires the plans of all the departments in the form of estimates, then the co-ordination of these estimates into a well-balanced programme for the business as a whole. It also requires the preparation of reports showing a comparison between the actual and the estimated performance, and the revision of the original plans when these reports show that such a revision is necessary.

The functional activities which are common to most businesses may be classified as follows:

1. The sales function.
2. The production or purchasing function.
3. The personnel function.
4. The finance function.
5. The standard and record function.

Since these functions are found combined in a single business unit, it is fair to suppose that there must be a close relationship between them.

As business administration can be discussed only in terms of business organization, so the "function" of the

COST AND MANAGEMENT

business can be discussed only in terms of the "functionaries" who are responsible for them. The discussion of the co-ordination of functions, therefore, resolves itself into a discussion of the co-ordination of the functionaries. Co-operation on the part of the functional officers is necessary in the efficient administration of any business. It is also necessary to provide for administrative control of these activities in order that the plans made will be carried out.

For the purpose of illustration we shall consider the joint stock company. The ultimate control is with the stockholders but their control, in the main, is exercised only indirectly. The stockholders delegate most of their powers of control to the board of directors. The board of directors, although acting in the capacity of trustees for the stockholders, usually content themselves with outlining the general policies to be followed and then delegate the execution of these policies to the general officers of the business. This is usually accomplished through the medium of the chief executive officer.

In a business of sufficient size to make advisable a functional organization of the administrative personnel there is usually an executive head for each of the functions known as:

1. Sales manager.
2. Production manager.
3. Purchasing agent.
4. Personnel or employment manager.
5. Treasurer.
6. Comptroller.

These functional managers assist the president, or general manager, in the formulation and execution of the policies of a business.

Experience has shown that in such an organization, if rational control is to be exercised, it is essential that there be available information which will serve as a basis for the formulation of the general policies of the business, information which will enable each administrative group to perform properly their duties and to co-ordinate its activities with those of all the other groups, also information which will enable each group to judge as to the efficiency with which the duties delegated by it have been performed by the subordinate group to which they were delegated.

BUDGETARY CONTROL

To insure the proper installation and operation of a system of budgetary control it is necessary to first work out a procedure to govern the preparation and use of the estimates of the various departments. The length of the budget period requires to be determined. The most important factors governing this are:

1. Length of merchandise turnover period.
2. Length of production period.
3. The method of financing employed.
4. The market conditions.
5. The adequacy and completeness of the data with reference to past operations.
6. The length of the accounting period.

No arbitrary rule can be made with reference to this, but a progressive month-by-month commentary on the accuracy of the estimating and planning makes for better business judgment and estimating for the next budget period.

The responsibility for the preparation of the estimate has next to be determined. It is deemed advisable to delegate this to those responsible for the performance of the estimate.

Periodic reports showing actual performance are required and considerable attention should be given to their form and content. In some cases it is preferable to obtain these reports from the accounting or a central statistical department. To be of most value these reports should be prepared promptly after the end of the budget period and the responsibility for their preparation, therefore, requires to be fixed.

Unless plans are formulated by each department to carry out its estimate the budgetary programme is likely to result in failure. Consequently a well thought out plan for the enforcement of these estimates is necessary.

Although previous to the installation of the budgetary programme it is impossible to secure a complete realization by all the executives and officers of what the programme involves, as much as possible should be done in this direction in order that the whole-hearted co-operation of everyone in the business may be secured.

COST AND MANAGEMENT

Organization for Budgetary Control

Now that we have considered the procedure governing the preparation, co-relation and enforcement of the departmental estimates, we shall find it necessary to set up an organization responsible for its enforcement. This should be effected before the budgetary programme is initiated, otherwise delays and errors are almost sure to occur.

It is desirable that the president or chief executive of the business should have direct control of all matters pertaining to the budgetary programme.

The appointment of a budget committee is advisable. This committee will consist of the principal functional executives, for instance, the president, sales manager, production manager, merchandise manager, treasurer, employment manager and comptroller. This committee considers all departmental estimates and makes such changes and revisions as it may think desirable. No estimate should be effective until it has received the approval of the budget committee. In case of disagreement the president's decision is final.

This committee will receive the reports, showing comparisons of the actual and estimated performance, and make any revisions necessary in the estimates for the balance of the budget period. The committee will also check up on those responsible for the execution of the estimates.

An executive should be appointed in charge of the procedure necessary for the prompt and accurate preparation of the estimates and reports. This work may well be delegated to the comptroller or a member of the staff of the president. This executive would make such recommendations as he thinks necessary to the committee. He would prepare from the departmental estimates, an estimated balance sheet and statement of profit and loss and supply the budget committee with all the information available to assist in the carrying out of its duties.

In many businesses the budgetary programme, after it has been formulated and approved, is submitted to the board of directors for consideration and approval.

The Sales Budget

It is difficult to consider the activities of any one department without considering to some extent their effect on the activities of all the other departments and vice versa.

BUDGETARY CONTROL

The initial step in the budgetary programme is usually made by the sales department. It is customary for the sales department to prepare a sales estimate which sets forth the sales which are desired and deemed possible during the next budget period. The sales estimate may be revised when studied in comparison with the future possibilities of the other departments as disclosed by their estimates. The "sales budget" then becomes the working programme of the sales department. It is the result of the co-operative efforts of all the functional departments of the business.

The sales programme may be considered as a statement of past experience modified by future plans which are in turn modified by trade conditions.

The volume and nature of the sales anticipated, vitally affect the operations and plans of the various functional managers of the business whether in a mercantile establishment or manufacturing business.

In preparing the estimate of sales, if done scientifically, a knowledge of the general plans and policies of the business is essential.

The sales should be classified in accordance with the desires of the managers, i.e., by commodities, or groups, territories, salesmen and customers. The sales estimates should essentially be made in terms of physical quantities. To avoid prohibitive labour in preparing estimates where the items of merchandise sold are very numerous, it may be found advisable to consider certain "key" items of which the fluctuations in sales govern the fluctuations in a number of similar items.

In deciding upon those responsible for the preparation of the sales estimate the organization of the business and its selling methods must be considered. In a wholesale or manufacturing enterprise the travelling salesmen may be required to prepare the sales estimate. In a departmental store the departmental managers are usually held responsible. In either case the central sales office, which would have the required data available, should carefully check and revise the estimates in the light of such information as they have.

The staff officers then study and revise the sales estimate in the light of their information and judgment. They would need to consider the production or purchasing capacity of the business, the gross profit to be obtained from the sale of the different items of merchandise, the selling and ad-

COST AND MANAGEMENT

ministrative cost and financial requirements of the contemplated programme.

If after the first month the actual performance as reported, shows a revision is necessary, the other departmental budgets will then be affected.

In making the comparison between sales and estimated sales the term "sales" should be interpreted as orders received.

In order that the budget committee may be able to see the financial requirements of the proposed sales and production programmes at the time they are submitted to it for consideration, an estimate of selling expenses is needed. It is very important that an effective control be exercised over sales expense if the greatest amount of profit is to be derived from the sales operations.

The Production Budget

To execute the programme as shown by the sales budget, it is necessary that these commodities or services be produced by the firm which offers them for sale or that they be purchased from other firms.

We shall first consider the making and execution of plants required to ensure deliveries from the factory to meet the sales. A production budget should be prepared and a production programme formulated.

For the purpose of budgetary control, manufacturing industries may be divided broadly into two general classes:

1. Those which manufacture a standard commodity or commodities, and produce and place them in stock in anticipation of sales demands.
2. Those which produce goods in accordance with the customers' specifications, and hence cannot manufacture for stock, but only in response to orders.

In the first case it is necessary to plan production so as to have available the goods required when the sales order is received. In the second case it is necessary to plan production so as to be able to produce the goods as quickly as possible after the order is secured.

In preparing the production budget for goods for stock and for effective production control, we shall require to consider the following:

1. The sales budget—It is, of course, desirable that the sales budget may approximately equal the production capacity.

BUDGETARY CONTROL

2. The problem of scheduling production in anticipation of sales orders and the placing of them in the finished goods storeroom so that customers may be served promptly and according to the delivery dates given in the sales contracts, and yet prevent an excess of inventory and the consequent loss on the capital invested.
3. The control of the finished goods inventory by the establishment of "minimum" and "maximum" limits. In establishing minima and maxima, the production period, probable sales, margin of safety, and economical run should be considered.
4. The maintenance of a finished goods record. Usually this record is kept in what is termed a "balance of stores" form which is especially adapted for exercising effective inventory control.
5. The preparation of a budget for each of the elements of production cost: materials, labour and overhead. This will ensure, that the necessary amount of materials and labour will be available and excess amounts will be prevented; that the cost of materials, labour and overhead shall be under effective control, and that the cost of financing the production programme may be determined for the financial budget.

In the case of a business which manufactures on both standard and special orders, separate estimates should be prepared for each class.

The Materials, Labour and Manufacturing Expense Budgets

An estimate of materials, labour and expense is necessary in order:—

1. That the purchasing department, the personnel department and the various departments which are responsible for securing the "services" which compose manufacturing expense, may make plans to have the necessary materials, labour and "services" by the time they are needed in production.
2. That the treasurer may know the probable disbursements required by these programmes and can plan to obtain the funds necessary to meet these disbursements.
3. That standard rates for manufacturing expense may be established more accurately.

COST AND MANAGEMENT

4. That the budget committee may be able to see the financial requirements of the proposed sales and production programmes at the time they are submitted to it for consideration. The combined budgets enable the budget committee or board of directors to judge as to the advisability of undertaking the financial obligations imposed by the proposed budget programme. And in addition they may be able to see the relation of the volume of production to the manufacturing expense.
5. That an estimated balance sheet and statement of profit and loss may be prepared.

In the same manner in which the production department maintains an analysis of each of its products to show the manufacturing operations required in its production, it should maintain an analysis which will show the materials and labour required in the production of each commodity. By the use of this analysis it is possible to estimate, on the basis of the production budget, the materials and labour which will be required to produce the goods called for by the production programme.

If a planning department is in operation this analysis will probably be maintained by this department. The estimating, pay-roll or personnel department may have the information required in estimating the labour requirements.

In some cases it is expedient to determine the material requirements by ratios of materials for the different classes of product manufactured as shown by past performances. The use of standard material rates, if developed, is very useful in determining material requirements for the production programme.

In order to take up the slack between the purchase deliveries and production requirements of materials, an inventory of materials is necessary. The control of this inventory is similar to that applying to the finished goods inventory.

There are many factors which may affect the purchasing policy of a firm, and there are some of these which are opposed to the control of purchases by budget. For instance, some firms think it is a function of the purchasing department to speculate on market changes and tendencies. This policy is likely to prove a dangerous one if careful control is not exercised.

BUDGETARY CONTROL

The purchasing department not only purchases direct materials but also numerous supplies which are used in carrying on operations. Under a well-developed system of inventory control it is customary to term as "stores" all materials purchased for all purposes. It is the practice of some firms, using this method, to prepare a stores budget which takes the place of the materials budget.

In some cases it has been found advisable to prepare two budgets, the first based on purchases and the second on consumption. The consumption budget is essential if standard costs are to be established for material, labour and manufacturing expense.

The labour requirements are sometimes estimated on the number of machine hours required by the production budget. The application of ratios of labour to production volume as determined by past experience is found useful in some cases. Where standard rates of labour to be used in the manufacture of each product are established, the task of preparing the labour budget is greatly lessened.

It is the practice of some firms to prepare a pay-roll budget which takes the place of the labour budget. This practice may lead to inaccurate estimates or make difficult an accurate check on the estimates. It is desirable to have each functional department prepare an estimate of its total expense, including its pay-roll. This procedure requires the head of each department to consider what his costs have been and what he plans they will be in the future.

The cost accounting department is the one place where all the items of manufacturing expense are shown. Its records show what the manufacturing expenses of the past periods have been and it is possible for it to prepare on the basis of these records an estimate of what the manufacturing expenses will be. The estimate, of course, must take into consideration the production programme for the period as shown by the estimate of production. The manufacturing expenses should be classified as "fixed" and "variable." The estimate of fixed charges is then a simple matter but careful attention must be given to the effect of the production volume on the variable charges.

As standard rates for manufacturing expense are considered important from the viewpoint of administration, so they may also be of considerable significance from the viewpoint of budgetary control.

COST AND MANAGEMENT

Where the procedure of preparing stores and pay-roll budgets is followed, which includes both direct and indirect materials and labour, a "miscellaneous" expense budget should be prepared. This will include all the manufacturing expenses other than indirect material and indirect labour. While this method is easier it is doubtful if it gives an effective control of manufacturing expenses. Budgets should be prepared in terms of "units of responsibility."

The Purchases Budget

The amount and class of goods to be purchased by a merchant depends primarily upon his estimate of future sales. He has a similar problem of co-ordination to the manufacturer.

The principal problem in merchandise planning is to determine the size of the inventory which should be maintained, and to set up a purchases programme which will schedule deliveries to stock in such quantities and at such times as to provide for its maintenance at this amount. In other words it is a problem of finished stock requirements.

After the sales estimate is prepared the "average" or "normal" inventory necessary to meet sales demands should be determined. This may be accomplished by determining the average inventory during past periods and the merchandise turnover of those periods, then applying that turnover to the estimated sales of the current period to obtain the average inventory for the present period. The average inventory should then be carefully considered in the light of past experience and modified where necessary.

When the estimated inventory has been determined, it is then necessary to make a schedule of deliveries and purchases which will maintain this inventory. This schedule may be termed the Purchases Budget. This budget will require to be revised in the light of purchasing possibilities, expense requirements and profit potentialities.

The Plant and Equipment Budget

While expenditures for plant and equipment are most important in connection with an industrial concern, they are of some significance in the case of all businesses.

A proper analysis of plant and equipment expenditures is required to determine their classification, i.e., repairs, replacements, betterments and additions. The record of

BUDGETARY CONTROL

these should show correctly their effect on the financial condition of the business.

The amount expended on account of plant and equipment should be sufficient to provide a well-equipped and efficient plant, and at the same time not exceed what is necessary to secure this result.

The control of these expenditures is possible through the medium of a plant and equipment budget. This would show the anticipated repairs and depreciation on the present plant and equipment, the cost of new equipment, factory and otherwise, and the anticipated repairs and estimated depreciation on the new equipment to be secured. Any other desired information such as the value of equipment at beginning and end of the period may also be shown.

The responsibility for the preparation of the budget and reports should rest with the heads of the various departments. These may delegate the responsibility to the plant engineer or avail themselves of the services of the accounting department.

The Expense Budgets

One of the first steps in effecting a proper control of expenses is the establishment of a proper classification or grouping of them.

The allocation of the indirect expenses should be made in such a manner as to indicate the responsibility for their incurrence.

To enable the definite fixing of responsibility and a comprehensive explanation of variations, the following classification is suggested:

- | | |
|--|--|
| 1. Manufacturing Expenses | } These we have
already dealt with. |
| 2. Selling Expenses | |
| 3. Financial expenses, or those incurred in planning and controlling the receipt, custody, and disbursement of funds. | |
| 4. Auxiliary expenses, such as are incurred by the accounting, purchasing, personnel and office manager's departments. | |
| 5. Executive expenses, which include the expenses of the general manager and his staff. | |
| 6. Corporate expenses, which would include such items as capital stock tax, income tax, etc. | |

COST AND MANAGEMENT

The expense budgets should be prepared by the executive heads of the various departments and transmitted to the budget committee or board of directors for their consideration, approval and the making of appropriations to meet the estimates as approved.

The Financial Budget

In Bradstreet's analysis of the 2,106 failures in Canada during the year 1926, the causes are classified generally as follows:

1. Lack of Capital	37%
2. Incompetence	25%
3. Inexperience, competition, specific conditions, fraud, speculation, etc.	38%

Lack of capital, although the apparent individual cause of the greatest proportion of failures, is not necessarily the primary condition, but may arise or be aggravated by other causes such as injudicious living.

If financial requirements had been estimated and plans had been made in advance to meet these requirements, this lack of capital in many cases could have been prevented. The custody of the cash receipts, the maintenance of the cash balance, and the control of the cash disbursements are among the most important functions of a business. The proper accomplishment of these requires a far-sighted policy in a general way, but immediate capital needs should be estimated as accurately as possible.

The financial budget is a budget covering all the activities of the business and therefore requires the co-operation of all the departments of the business. It is obvious that cash receipts and disbursements, in many cases, are separated from the activities which produce the receipts or cause the disbursements by a certain interval and it is a difficult problem to estimate accurately the length of this interval. All sources from which cash is received should be determined. The estimate of collections from accounts receivable, the principal source, must be based on the estimate of sales which has been prepared. The estimate of disbursements must be based on the various departmental estimates. To provide for inaccuracies a cash balance is necessarily carried.

After the various departmental estimates have been approved, the preliminary estimates of cash receipts and

BUDGETARY CONTROL

disbursements will be revised, if necessary, to give effect to any changes made in the departmental estimates by the budget committee. The revised cash estimates when approved, constitute the cash budget.

If bank loans or other means of financing are required, a programme should be set up based on the estimated cash receipts, the estimated cash disbursements and a summary of financial requirements.

The Estimated Balance Sheet

The balance sheet and the statement of profit and loss have become the two standard reports which are usually prepared by all businesses. These are used by the creditors, shareholders, and executives of the business in the making of decisions and the formulation of policies with reference to the business.

These reports show respectively the financial condition of a business as at a certain date and the results in terms of profit and loss of its operations over a certain period of time. Probably the most important information disclosed by these reports is the indication of the possible result of the future operations of a business.

In pursuance of the policy of preparing departmental budgets in a systematic, complete and formal manner, it is desirable that there can be prepared an estimated balance sheet or "budget" of assets, liabilities, and proprietorship, also an estimated statement of profit and loss, or "budget" of income and expense. These estimates are of use in showing business men where they are going and how they are to get there.

In order to insure that budgets be available in ample time—not less than a month before the beginning of the period to which they relate—the latest available balance sheet must be projected to the beginning of the budget period. This necessitates of course the estimating of financial operations for the balance of the current period. I would stress that the natural year end of the fiscal period of a business should be given consideration in relation to the proposed budgetary programme.

A comparison of the balance sheet figures at the beginning of the budget period with the estimated balance sheet at the end of the period will usually reveal the necessity for revision in many of the departmental estimates.

COST AND MANAGEMENT

The Estimated Statement of Profit and Loss

The contents of the estimated statement of profit and loss may be classified into the following principal groups:

1. Returns from sales—These are obtained from the estimate of sales after making provision for sales returns and allowances.
2. Cost of goods sold—This requires a consideration of the beginning and ending inventories of finished goods, materials, and goods in process. The estimated purchases of materials, labour and manufacturing expense can be taken from the budgets prepared for these expenditures.
3. Operating expenses—The amount of each class of expense can be obtained from the various expense budgets.
4. Non-operating income—The purchase discounts, interest and the like may be obtained by simple calculations based on the information contained in the various budgets.
5. Non-operating expense—This should be quite easy of estimation.

The estimated statement of profit and loss should be shown in comparison with the actual or projected statement at the beginning of the period. This is the most convenient and effective method.

It is probable that a revision of the departmental estimates will be considered necessary after a study of the estimated balance sheet and statement of profit and loss. The executive in charge of the budgetary procedure will revise the estimated financial statements so as to give effect to the changes which have been made in departmental budgets.

Much has been said and written in regard to the advantages obtaining from the use of budgetary control. There are, however, certain limitations which it is essential should be understood. Unless this is done the following results are likely to happen:

1. Too much will be expected from the budgetary programme and when it fails to fulfil expectations it may be thought useless and be abandoned.

BUDGETARY CONTROL

2. Too much reliance may be placed on its operation which may result in too little emphasis on other methods of administrative control.
3. It may be followed blindly which may bring results more detrimental than those which arise from its absence.

The most important and significant limitations of budgetary control are:

1. The budget programme is based on estimates and therefore requires the use of keen judgment, also frequent revisions.
2. Budgetary programmes will not execute themselves.
3. Budgetary control cannot take the place of administration. It provides only the information on which administrative decisions and control are based.
4. Budgetary control cannot be perfected immediately. In many cases it is desirable to install budgetary control gradually so that all concerned may be educated to its needs and purposes. A budget should be made to fit the business, not the business the budget.

The subject of Budgetary Control can only be treated in a general way, when confined to the limitations of a single address. The specimens of the forms of budgets and reports, as shown by exhibits numbered one to ten, are merely suggestive of the details considered necessary for the purposes of Budgetary Control.

In closing I would ask you to bear in mind the words of William Ewart Gladstone, who in 1860 introduced an important budget in connection with the treaty between England and France—"Budgets are not merely affairs of arithmetic, but in a thousand ways go to the roots of prosperity of individuals, the relation of classes, and the strength of Kingdoms." (*See forms on following pages*)

POSITIONS DESIRED

No. 268—Canadian Accountant now in the States wishes employment in Canada. Graduate of Mount Saint Louis Institute. Several years experience in costing, accounting and office management in large American foundries and other industries. Both languages. References. For particulars apply to the President of the Dominion Board.

COST AND MANAGEMENT

SUGGESTED FORMS OF BUDGETS

Exhibit No. 1

FACTORY REQUIREMENTS (For use in preparing Sales estimate) FIRST QUARTER OF 192—

Items	Sales Past Periods	Estimated Sales Jan. 1 to Mar. 31	Estimated Inventory Mar. 31	Estimated Inventory Jan. 1	Amount required for Stock	Direct Shipments	Total required from Factory

Exhibit No. 2

MATERIALS BUDGET

Items	First Month				Second Month		
	Inventory Beginning	Estimated Purchases	Estimated Inventory at end	Estimated Disbursements for Purchases of previous month	Estimated Disbursements for Purchases of current month	Inventory Beginning	Estimated Purchases etc.

BUDGETARY CONTROL

Exhibit No. 3

LABOUR BUDGET

Dept.	Amount last period	Average amount last four periods	Estimated amount for present period	Estimated Production for period	Average Production for last four periods	Distribution			etc.
						First Month	Second Month	Third Month	

Exhibit No. 4

MANUFACTURING EXPENSE BUDGET

Dept.	Amount last period	Average amount last four periods	Estimated amount for present period	Estimated Production for period	Average Production for last four periods	Distribution			etc.
						First Month	Second Month	Third Month	

COST AND MANAGEMENT

Exhibit No. 5

EXPENSE BUDGET

[illegible]

SUGGESTED FORMS OF REPORTS

MONTHLY REPORT OF SALES

Exhibit No. 6

Month of.....192

[illegible]

BUDGETARY CONTROL

Exhibit No. 7 PERIODIC REPORT ON MATERIALS BUDGET

Items	Estimated Purchases	Actual Purchases	% Increase or Decrease	Estimated Inventory	Actual Inventory	% Increase or Decrease	Comments

Exhibit No. 8 MONTHLY REPORT ON LABOUR BUDGET

Department	Estimated Production	Actual Production	% Increase or Decrease	Estimated Labour Cost	Actual Labour Cost	% Increase or Decrease	Ratio of Estimated Cost of Labour to Estimated Production	Ratio of Actual Cost of Labour to Actual Production	Ratio of Cost of Labour to Cost of Production during Actual Production 4 periods

COST AND MANAGEMENT

Exhibit No. 9 MONTHLY REPORT ON MANUFACTURING EXPENSE

Department	Estimated Production	Actual Production	% Increase or Decrease	Estimated Manufacturing Expense	Actual Manufacturing Expense	% Increase or Decrease	Ratio of Estimated Mfg. Expense to Estimated Production	Ratio of Actual Mfg. Expense to Actual Production	Ratio of Actual Mfg. Expense to Cost of Production During the last 4 periods

Exhibit No. 10 MONTHLY REPORT ON EXPENSE APPROPRIATION

Item	No. of Appropriation	Original Amount	Additions	Deductions	Final Amount	Cash Disbursed	Accounts Payable	Undisbursed Balance

MONTHLY PROFIT AND LOSS FROM STANDARD COSTS

Monthly Profit and Loss From Standard Costs

By D. C. PATTON

Secretary-Treasurer, Sangamo Electric Co., Ltd.

(Before Toronto Chapter, October 12, 1927.)

THIS is a subject that could be dealt with at length and along two or three different lines. This is our opening meeting to-night, however, and we do not wish to take up too much time with the actual papers, but with discussion and in getting acquainted.

Accordingly, I will attempt to outline briefly, first, the use or value of monthly profit and loss statements, and secondly, the manner in which we prepare our own from a standard cost system.

We are a manufacturing concern producing high grade electrical meters and selling them in a highly competitive field both here, throughout Canada, and in several foreign countries, chiefly Mexico, Brazil and New Zealand, as well as supplying certain parts to our English and Japanese factories.

In the domestic field, prices are pretty well stabilized, and we know from years of experience that under given conditions, we can make a profit on domestic business.

In a country of as widely scattered and comparatively small population as Canada, the Canadian manufacturer has a fairly well defined limit to the business he can, with the best of advertising and selling effort, expect to take. Likewise, we all know that quantity production cuts costs, and so many of us, with confidence in Canada's future, are gradually enlarging our plants to take care of increasingly larger domestic business, and are digging hard into the export field to keep our surplus capacity busy, and to reduce costs on our domestic output.

Under these conditions, accurate costs and accurate and frequent up-to-date profit and loss statements are vital to us. We all agree, I believe, that where there is insufficient normal business to absorb all a plant's capacity and its consequent overhead expense or burden and show a reasonable

COST AND MANAGEMENT

margin of profit, then every dollar's worth of additional business that can be secured which will clear material and labour costs and absorb *some* general expense, or overhead, is very much worth going after. The trick is to know just when to go after that sort of business and how much of it you want to take. The balance line is not hard to define if you have a cost system which gives you real costs and from which can be prepared complete profit and loss statements and subsidiary reports every month to graphically reflect the actual condition of your business throughout the year. Without them, I know we would often be very much at sea.

When I settled down the other night to make a start at this paper, the thought occurred immediately: "Why not get my Chief to tell me just what the reports we give him each month tell him; what value he derives; and the salient points he takes from them." So I called him up, and here is what he had to say: "You bet your life I can tell you. Got your pencil?"

"Your monthly reports must tell me far more than merely whether we cleared a reasonable profit for the month in question or not. We are in business permanently, and every month's profit or loss statement must be readily capable of a critical analysis for the shaping of our entire business policy. It is only natural that I first note the actual amount of net gain, then I move to the gross sales and note the relation of profit to sales. I want to know next how these gross sales were made up, that is, they must be divided into export and domestic, and sub-divided into classes of apparatus. Up to this point I have the general information as to our profit, our volume of business, relative profit on export and domestic sales, and which lines are profitable and which are not.

"It is a step only to arrive at our sales expense, and its relation to the above figures. Since we calculate our costs on a general expense figure which is fixed for fairly long periods, and our selling schedules are reasonably constant, I am also in a position at this point to get an over-all idea of our manufacturing efficiency. I next turn my attention to your 'Over or under absorbed burden figure.' Assuming fixed efficiency of labour, this is the measure of over-all plant efficiency, and has a vital bearing on 'Production business,' principally export.

MONTHLY PROFIT AND LOSS FROM STANDARD COSTS

"At this point, I have a pretty accurate picture of our operations and am prepared to investigate your supporting reports. These must include a manufacturing analysis, detailed sales analysis, labour report, detailed report of overhead expenditures in relation to budget, and, of course, the old reliable balance sheet. With the general picture in my mind, I can go into these and find the 'Why?' of every variation in the whole picture. The sore spots sort themselves into things on the inside of which steps can be taken of a corrective nature, and those things which are not controllable in the plant but tie up directly with the outside, that is, sales and selling prices.

"If you have given me the proper data in these reports, I can finish up with a clear idea of what steps I must take to correct any faulty conditions in our plant, and what I must endeavour to make our sales organization accomplish."

From this you will see that in our business, these monthly reports are indeed of great assistance and value, and I am confident that in any business, whether engaged in as complicated a line as our own or not, similar reports adapted to the peculiarities of the business, would certainly be of value.

I will not bore you with a lot of routine details as to how we prepare our monthly figures, but will outline our system as briefly as possible. Naturally, to find out how much profit or loss you have made for a period, you must know how much your sales cost and how much any additions to inventories cost. Here is how we find out.

We use a pretty standard formula with which no doubt many of you are familiar. We use standard costs, or at least we get actual material and labour costs and bring in the burden element by using a set percentage on labour. This percentage is not changed during the year unless some out-of-the-ordinary condition arises that makes a change essential. From up-to-date costs, which I will explain in more detail later, all our sales and production of finished parts and meters are costed each month and taken into our books. As soon as one month's billings are completed, the task of drawing up reports is commenced. As a first step, the Accounting Department prepares a complete analysis of the month's sales in two main divisions: Export and Domestic, each of which is divided to show actual number

COST AND MANAGEMENT

of each different type and capacity of meter, transformer, electrically wound clock, or condenser shipped, the quantity by serial number of all parts shipped, and the quantity by number of shipping boxes used. These totals are checkable several ways from other records and there is very small chance of error.

Meantime, throughout the month as shop orders in the plant are completed and deliveries made through the Inspection Department to the Finished Stores or Shipping Room, the Production Department turns over to us a cost sheet for each order on which is shown the actual materials used, the number of parts delivered, and the scrap. I might explain at this time that due to the nature of our business and the large number of special parts we manufacture, we have found it best to stick to individual shop orders and the weighted average cost of each part is recorded from them. Based on the frequency with which certain stocks are turned over, fresh averages are started, and in this way our parts cost record always shows the latest average cost of each part.

Daily time tickets and payroll records are designed so that the payroll clerks every week post to office copies of each shop order, all direct labour performed and paid for.

Consequently, as soon as an order is completed and turned in to us, the following procedure is carried out:

- (1) Materials used, or in the case of sub-assemblies, the parts used, as listed by the Production Department from actual requisitions, are checked by our copy of the specification for the part in question.
- (2) These materials or parts are priced from the last average costs, extended and totalled.
- (3) Direct labour is recorded and totalled after being checked with the factory copy of the order.
- (4) Burden is calculated on total labour at the standard rate in effect.
- (5) A summary is made in space provided on cost sheet to show:
 - (a) Cost of order in total and by material, labour and burden.
 - (b) Cost per hundred for units delivered in total and by material, labour and burden.
 - (c) Value of raw material used as distinct from value from any other parts.

MONTHLY PROFIT AND LOSS FROM STANDARD COSTS

Ruled cards for each part are kept and this information recorded on them. A check of these cards shows up immediately any increase or decrease in costs over previous orders and any subnormal differences are investigated and any errors so disclosed corrected, or if the reason is "reasonable" an explanation noted on the card. After all the month's completed orders have thus been recorded, checked and O.K.'d, they are entered in the weighted average cost book, recap'd and then journalized in total:

Dr. Manufactured Part Stock	Cr. Raw Materials
	Process Labour
	Burden Absorbed.

Thus, Finished Parts Inventory control is debited at standard cost with all parts manufactured for the month.

While this data is being prepared, the cost of all meters, transformers, etc., shipped for the month is being lined up as well as the cost of finished meters built and put into stock, in this manner:

Perpetual Inventory stock cards are kept for finished meters and transformers and so designed that the actual number of each style and size in stock on the last day of each month at its latest cost is shown. Working from the sales analysis, all shipments from stock during a month are charged out on the cards and then recap'd and priced at their latest cost. These totals are journalized to:

Dr. Cost of Sales (export or domestic)	Cr. Meter Stock
--	-----------------

The balance of meters and transformers shipped during the month which we did not have in stock at the end of the last month obviously must have been built and shipped during the current month, and on special specification charts with a column for each month, the cost of the parts used in each different type and capacity of meter is entered as soon as the latest Shop Order costs have been completed as previously described. To the total value of the parts entering into the complete meter assembly is added assembly, testing and packing labour, with its rated overhead; and a cost per hundred meters or transformers, in total, and by parts, labour and overhead, is arrived at. These totals are recap'd and journalized:

Dr. Cost of Sales (export or domestic)	Cr. Parts Stock.
	Process Labour
	Burden Absorbed.

COST AND MANAGEMENT

Radio condensers, shipments of parts, and miscellaneous items including boxes are similarly handled and their total cost journalized to:

Dr. Cost of Sales (export or domestic)

Cr. Respective Stock accounts.

At this point, we now have Cost of Sales debited with the latest cost of everything shipped and billed for the month, and the respective stock account controls credited. All parts manufactured for the month have also been charged to Finished Parts Stocks, and the materials, labour and burden forming their cost credited to their respective control accounts. It remains to charge Finished Meter Stock with all the meters built up and put into stock for the month. To get at this accurately, actual count is made the last working day each month, and a stock sheet filled out showing number of each type and capacity in the stock room. This sheet is prepared independently from, but checked and agreed with, the perpetual inventory record. Working from this report and the individual stock cards for each kind of meter, it is easy to prepare a list of all new meters showing in stock at the end of the month. To illustrate, say we are dealing with Type H, 10 ampere, 110 volt, 2 wire meters. Our Sales Recap. shows we shipped 750 for the month. Our stock card shows that at the end of the last month we had 500 in stock. Entry would be made showing 500 shipped from stock, and 250 built and shipped as outlined previously. Then the new stock report shows 425 in stock again, at the end of the current month. These are listed as being built and put into stock, and with all the others, costed on the Specification charts we have been talking about, and the totals journalized:

Dr. Meter Stock

Cr. Parts Stock

Process Labour.

Burden Absorbed.

The additions to stock are, of course, entered in on the meter stock cards, and they then show the correct number in stock at the last day, and are in agreement with the general stock report. This completes the monthly cycle of transfers, and our Finished Meter stock is now charged with all additions to stock for the month.

A calculation of Duty Drawback on Exports is made, and from previous claims this can be prepared very accurately. This amount is debited to Drawback Account and

MONTHLY PROFIT AND LOSS FROM STANDARD COSTS

credited to Cost of Export Sales. Depreciation on Plant and Equipment is also figured up on scheduled rates in the usual manner, and when all these entries have been made, and the subsidiary books—cash, purchase and sales journals, etc., closed and posted to their respective controls, a balance is taken of the manufacturing and general ledger which now shows the following, to summarize:

The Inventory or Stock control accounts, labour, raw materials, parts, meters, etc., have been debited with all purchases for the month, and with all finished parts and meters manufactured during the month and put into stock. They have been credited with all materials and labour used, and all parts and meters sold. Sales have been credited with the month's billing, and Cost of Sales debited with the latest cost of all goods sold. All expense accounts have received their usual monthly entries through the Purchase and General journal, and the total to the credit of Burden Absorbed Account, compared with the total of all individual Factory expense and miscellaneous supply accounts, shows the under or over absorbed burden for the period. Gross profit is then ascertainable, and selling and administrative expenses then deducted show net profit.

Realizing that it is human to err, and that in all these calculations and figures, some mistakes must occur and some omissions or oversights be made, we introduce into our monthly entries what we call "Factors of Safety" to offset any such errors, charging Cost of Sales, and crediting Stock Accounts with 1% here, 2% there, and from several years' experience, we have these "safety margins" rather nicely worked out, so that at the end of the year when actual check-up is made, while we may find one account is a little over book figures, and another a little under, we have for a good many years now come out a little better than our monthly reports had indicated, but never by a sufficiently large amount to cast any serious doubts on the over-all accuracy of our monthly figures, and the story they have been telling us throughout the year.

From all these costs and entries, and from the monthly balance of the Manufacturing and General ledger, the following reports are prepared in duplicate, one for our own study and files, and one for our parent Company's:

1. Regular balance sheet, Assets and Liabilities, in the standard manner with which you are all familiar.

COST AND MANAGEMENT

2. Detailed Profit and Loss Statement, or rather a combined Manufacturing, Trading and Profit and Loss report, starting with Sales, less Commissions, and then in the usual manner Inventories at first of year, plus Purchases, Labor and Burden absorbed, less Inventories at end of period to show cost of goods manufactured, and sold. This figure, less estimated Drawback subtracted from Net Sales gives Gross Factory Profit based on the percentage of overhead being used. Deduction or addition of under or over-absorbed burden figures gives Net Factory Profit, and further deduction of selling and administrative expenses and addition of miscellaneous income, gives net estimated profit for period.
3. Profit and Loss Statement for the one month only, showing the month's sales, commissions, cost of sales, under or over absorbed figure, and net result for the one month.
4. A Manufacturing Analysis showing opening inventories, purchases for period, and closing inventories of all stock control accounts, actual expense accounts total, absorbed expense account total, and the resulting difference up or down, etc. From the groupings and sub-totals in this report, the figures used in total on the foregoing reports are taken.
5. Sales Report showing by dollar and cent totals the value of Sales Export and Domestic of our various lines and products for the month, together with details of all deductions such as sales tax, cash discount allowed, returns and credits.
6. Expense Accounts Report divided into Manufacturing, Selling and Administrative sections. This is a five-column report showing
 - a. Amount spent or debited in each account for the month.
 - b. Total in account to end of period.
 - c. Monthly budget.
 - d. Budget for period.
 - e. Difference between actual expenditures and budget.
7. Report of meters and transformers built for the month, with the latest cost of each type and capacity, estimated drawback on export meters, and a sum-

LABOUR'S NEW CO-PARTNERSHIP

mary showing the totals of each type, export and domestic.

8. Report of additions to Permanent Investment, built, purchased, and total.
9. Report of orders booked for the month, by units and by dollar and cent value.

To accompany them, the writer makes a written report, after careful analyzing the whole line-up, briefly commenting on the month's results, comparing them with those of previous months and the same period last year, and explaining any important changes in our balance sheet and giving reasons for any sharp increase or decrease in the month's profit. You have already heard what Mr. Lynn does with them, but I might add that he also prepares from these figures a series of graphs and charts, which, together with the reports we prepare, are kept on special binders and certainly give a pretty complete and graphic record of our Company's progress for several years past, and are invaluable for ready reference at any time.

Labour's New Co-Partnership

By DAVID S. KERR, C.A.

(Part of an Address on "Interpretation of Costs—Erroneous and Other," before the Montreal Chapter, November 10, 1927)

AT the Annual Convention of the American Federation of Labour, held at Los Angeles in October, 1927, Labour decided that "*unless workers are to be put at a disadvantage in maintaining and advancing wages, Unions must gather their own statistics and make their own interpretations of the statistics compiled by Statistical Bureaus and employers.*" In other words, if the outlook indicates profits warranting it, labour wishes a share of these profits by way of an increase in wages.

Any plan that may be adopted in order to minimize the number of strikes and resultant loss in wages to labour, loss in profits to capital, and inconvenience to the public in general, is well deserving of receiving a most careful study, and of being given sympathetic support from all quarters.

To most of the demands made for increases in wages, the reply has been that profits do not warrant the complying with the requests, so that Capital has injected the

COST AND MANAGEMENT

question of ability to meet demands being based upon profits of the industry concerned. Now Labour will endeavour to see what can be accomplished by being guided, to a greater extent than formerly, by considering the earnings question before deciding upon strike measures, if the spirit of the new plan be properly construed. The importance of this new attitude, and its far reaching effect, must not be underestimated.

One of the greatest, if not the greatest, deterrent in effecting speedier settlement of differences between Capital and Labour has been a decided lack of confidence in the arguments, etc., put forth by Capital when negotiating with Labour. And there has been an abundance of justification for this distrust when questions of earnings have been brought into the discussions.

What are the important points that will require careful attention in carrying out the new policy of Labour? Some of them are as follows:—

1. All cards, of Capital and of Labour, must be put on the table when discussing questions:
2. Labour cannot be asked to consider any return on watered capitalizations:
3. Methods of valuations of fixed assets of Corporations will require to be carefully reviewed by Labour, in order to insure just dealing:
4. Labour will require to appreciate that fair and reasonable average annual returns must be allowed on actual investments in industry, based upon the risks involved:
5. Window dressing of accounts and other statements, by way of erroneous distribution of expenditures, or otherwise, must be eliminated:
6. Labour must endeavour to give their best efforts, reduce absenteeisms, and otherwise assist for the mutual benefits:
7. Labour must not conclude that wages will be either maintained or increased. They must be prepared for any necessary reduction:
8. Statistics are not sufficient to conclude as to the future of corporations, as they refer to past history only. In judging whether or not future business is likely to warrant maintaining or increasing wage standards, other factors, besides statistics, must be considered:

LABOUR'S NEW CO-PARTNERSHIP

9. Subsidiary companies, as well as Parent or Holding Companies, most reveal their operations, and these must be on the basis of conducting business as separate independent units, irrespective of how the controlling Capital Stocks are owned. Otherwise, Labour's desire to know the earning capacity of the industry, in order to guide them as to their decision, will be defeated in such cases:
10. Fluctuations of market values of shares of Capital Stocks of Corporations do not afford a reliable business "yard-stick" or gauge to guide negotiations. The wide range of Stock Market fluctuations during the present year is quite sufficient to clearly demonstrate this, there having been no corresponding variations in business conditions:
11. That Labour will not contribute to past losses of corporations or agree to take very low wages even if profits can not be obtained by Capital, may as well be considered as a definite position. The so-called, but undefined, "living wage" must always be paid to Labour, no matter what happens to Capital.

The working of Labour's new co-partnership plan will be watched with considerable interest.

Nor must the fact be overlooked that many of the largest, as well as other, corporations are constantly encouraging, by energetic selling campaigns, their employees to become stockholders.

If there is sincerity behind the incessant ostentatious appeals for the application of the "Golden Rule," there is now offered one of the greatest opportunities for its practical demonstration in minimizing the difficulties between Capital and Labour.

NOTICE TO MEMBERS

A list of members of the Society as at March 1st, 1928, will be published in our March issue. Those whose dues are in arrears at the present time have been notified. The addresses now on our mailing list will also be published, and members are requested to notify us at once of any change.

COST AND MANAGEMENT

NEW MEMBERS

The following applied for senior membership, and were accepted as senior members, in the Society from September 1st, 1927, up to January 31st, 1928:—

Toronto

Dalgleish, T. G., C.A.	Huronian Belt Co.
Eddis, C. S., C.A.	W. C. Eddis & Sons.
English, J. J., C.A.	Clarkson, Gordon & Dilworth.
Howard, A. G.	Lincoln Meter Co., Ltd.
Millar, D. L.	F. N. Burt Co., Ltd.
McQuillan, H. J.	S. F. Stinson & Son.
Pointon, E. T., C.A.	Edwards, Morgan & Co.
Shepard, A. B., C.A.	Thorne, Mulholland, Howson & McPherson.
Taylor, R. B., C.A.	The Rowntree Co., Ltd.

Montreal

Booth, Wilfrid	735 Wellington St.
Burton, Geo. E.	Power Bldg.
Douglas, Hugh	Federated Press, Ltd.
Grondin, L. J.	Franklin Montreal Motors, Ltd.
Painchaud, L. P.	Buckley, Drouin Co., Ltd.
Thorpe, T. C.	The T. Eaton Co., Ltd.
Williams, James	Maritime Fish Corp., Ltd.

Hamilton

Bell, D. H.	Tallman Brass & Metal Co., Ltd.
Dickson, B. H.	Dominion Glass Co., Ltd.
Donald, Geo. E.	Canada Wire & Iron Goods Co., Ltd.
Matchett, M. W.	E. D. Smith & Sons, Ltd.
Robins, S. W.	Hamilton Hydro-Electric Commission.
Thompson, E. B.	Duncan Lithographing Co., Ltd.

Elsewhere

Payne, H. E. M.	J. D. Shier Lumber Co., Ltd., Bracebridge, Ont.
Zufelt, D. W.	Dalyte Electric, Ltd., Guelph, Ont.
Foulds, N. C.	Cockshutt Plow Co., Ltd., Brantford, Ont.
Wilkie, J. H.	Price Bros. & Co., Ltd., Quebec.

CHAPTER NOTES

TORONTO

Toronto Chapter held two successful meetings in January. On the 11th, Mr Carl B. Prosser, cost accountant, spoke on "Time and Motion Studies," a subject which he referred to as "of vital importance to all manufacturers." Mr. Prosser emphasized the value of trained observation in detecting weaknesses in methods of production. Personal relations with foremen and workers also enter into the task, and must be watched with care or the desired results will not be attained. He cited numerous examples of successful time and motion studies.

On January 25th Mr. R. Oaten, secretary-treasurer of the Gurney Foundry Co., Ltd., spoke on "Factory Overhead in the Stove Business." He described his company's methods of handling this problem, and the special difficulties faced. He also mentioned the steps which had been taken to develop some uniformity in costing methods among the various manufacturers in this line. We gathered that red ink figures are rather common in the industry, but we are getting hardened to this sort of thing, especially coming from representatives of old established and obviously successful concerns.

Both of these addresses are available for publication in Cost and Management.

The annual meeting of the Chapter will be held on February 22, at the same time as our regular meeting. The principal business will be election of officers for the Chapter for the ensuing year, and nomination of members for the Dominion Executive; other discussion affecting the work and welfare of the Chapter is also in order.

Members are reminded of the proposed class in Cost Accounting to be conducted next winter by the Extension Department of Toronto University. With a little attention we should have an educational course of real value to the members. Communicate with the headquarters of the Society.

COST AND MANAGEMENT

MONTREAL

The Montreal Chapter was at home to the Local Branch of the Canadian General Accountants' Association, at our first meeting of the new year, held on Friday, January 27th, at our usual meeting place, the new Arts Building, McGill University.

Professor R. R. Thompson outlined the "Correct Form and Sub-divisions of the Statements to show the operations of a manufacturing concern for a financial period." These statements comprise:—

(1) Those covering the activities of the Business Operators—

- (a) Factory in operation — showing the normal cost of manufacturing the finished product.
- (b) Sales Department—comparing the net sales figure with the net cost of sales.
- (c) Internal Management — arriving at the net profit from operations, after having made deductions for ordinary charges of selling, administrative and financial charges, plus any abnormal amounts attributable to management, and

(2) Those covering activities of the Directorate and Board of Management,

- (d) Method of permanent finance, with losses or profits outside the regular operations—showing as resultant the net income from all activities.

In addition to the above, all of which covered the definite period under review, a general statement "E" shows the disposition of the balance of surplus.

Strange to relate, the "listeners in" had personal opinions on several matters, which were not quite in agreement with the Speaker's remarks, and they expressed themselves quite frankly. Debate centred on such subjects as seasonable production, production at partial capacity, unusual factory closings—until "closure" was necessary to prevent an imminent all-night session.

However, harmonious relations still existed and were expressed in the brief closing remarks of Mr. J. E. Carpentier, C.G.A. President (who had kindly occupied the chair for the evening), Mr. Belanger and Professor Thompson.

